

L29 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:423358 CAPLUS

DN 135:26930

ED Entered STN: 12 Jun 2001

TI Ink-jet recording papers showing excellent ink absorption

IN Kaneko, Manabu; Kobayashi, Yukako

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001158165	A2	20010612	JP 1999-344672	19991203 <--
PRAI	JP 1999-344672		19991203		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001158165	ICM	B41M005-00
	ICS	B41J002-01

OS MARPAT 135:26930

AB The papers have on supports colorant receptor layers containing water-soluble polymers, preferably poly(vinyl alcs.), and SiO₂ fine particles which are treated with RmSi(OR₁)_n (R = C1-8 alkyl, aryl; R₁ = C1-3 alkyl; m = 1, 2; n = 2, 3; m + n = 4). The colorant layers may contain H₃BO₃ or borates. The supports may be papers obtained by coating polyolefins on raw papers. The treated SiO₂ show higher hydrophobicity, thereby improving porosity of colorant receptor layers and offering excellent ink absorption.

ST ink jet printing paper colorant receptor; alkoxysilane treated hydrophobic silica ink jet paper; water sol polymer ink jet printing paper; polyvinyl alc ink jet printing paper; polyolefin coated ink jet printing paper; boric acid ink jet printing paper

IT Silanes

RL: MOA (Modifier or additive use); USES (Uses)

(alkoxy, silica in ink-absorbing layers treated with; ink-jet recording papers showing excellent ink absorption)

IT Paper

(coated, polyolefin-coated, substrates; ink-jet recording papers showing excellent ink absorption)

IT Ink-jet recording sheets

(paper, with ink-absorbing layers containing water-soluble polymers and alkoxysilane-treated silica; ink-jet recording papers showing excellent ink absorption)

IT Paper

(printing, ink-jet, with ink-absorbing layers containing water-soluble polymers and alkoxysilane-treated silica; ink-jet recording papers showing excellent ink absorption)

IT 7631-86-9, Silica, uses

RL: MOA (Modifier or additive use); USES (Uses)

(colloidal, alkoxysilane-treated, in ink-absorbing layers; ink-jet recording papers showing excellent ink absorption)

IT 1303-96-4, Borax 10043-35-3, Boric acid, uses

RL: MOA (Modifier or additive use); USES (Uses)

(ink-absorbing layers containing, for film-forming by crosslinking; ink-jet recording papers showing excellent ink absorption)

IT 9002-89-5, Poval PVA 203 177646-18-3, Poval PVA 235
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-absorbing layers containing; ink-jet recording papers showing
 excellent ink absorption)

IT 9002-88-4, Polyethylene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (papers coated with; ink-jet recording papers showing excellent ink
 absorption)

IT 78-62-6, Dimethyldiethoxysilane 2031-67-6, Methyltriethoxysilane
 5314-55-6, Ethyltrimethoxysilane
 RL: MQA (Modifier or additive use); USES (Uses)
 (silica in ink-absorbing layers treated with; ink-jet recording papers
 showing excellent ink absorption)

RN 7631-86-9
 RN 1303-96-4
 RN 10043-35-3
 RN 9002-89-5
 RN 177646-18-3
 RN 9002-88-4
 RN 78-62-6
 RN 2031-67-6
 RN 5314-55-6

L29 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 2001-505758 [56] WPIX
 DNN N2001-375269 DNC C2001-152231
 TI Ink-jet recording paper having a color material accepting layer containing
 silica particulate treated with a specified compound.
 DC A14 A17 A82 F09 G02 G05 P75
 PA (KONS) KONICA CORP
 CYC 1
 PI JP 2001158165 A 20010612 (200156)* 15 B41M005-00 <--
 ADT JP 2001158165 A JP 1999-344672 19991203
 PRAI JP 1999-344672 19991203
 IC ICM B41M005-00
 ICS B41J002-01
 AB JP2001158165 A UPAB: 20011001
 NOVELTY - An ink-jet recording paper has a color material accepting layer
 containing silica particulate treated with a specified compound and
 water-soluble polymer on the support.
 DETAILED DESCRIPTION - In an ink-jet recording paper provided with a
 color material accepting layer containing silica particulate and
 water-soluble polymer on the support, the silica particulate is treated
 with a compound of formula (1). Formula (1)

$$R = 1-8C \text{ alkyl or aryl;}$$

$$R' = 1-3C \text{ alkyl;}$$

$$m = \text{integer of 1 or 2, } n = \text{integer of 2 or 3, the sum of them is 4.}$$
 USE - None given.
 ADVANTAGE - The paper has excellent ink absorbency.

Dwg. 1/0
 FS CPI GMPI
 FA AB; GI
 MC CPI: A12-B03; A12-W06; F05-A06B; G02-A05C; G05-F03

L29 ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN
 AN 2001-158165 JAPIO
 TI INK JET RECORDING SHEET
 IN KANEKO MANABU; KOBAYASHI YUKAKO
 PA KONICA CORP
 PI JP 2001158165 A 20010612 Heisei
 AI JP 1999-344672 (JP11344672 Heisei) 19991203
 PRAI JP 1999-344672 19991203
 SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2001

IC ICM B41M005-00
ICS B41J002-01

AB PROBLEM TO BE SOLVED: To provide an ink jet recording sheet having excellent ink absorbability.

SOLUTION: In the ink jet recording sheet comprising a color material receiving layer containing silica fine particles and a water soluble polymer on a support, the particles are treated by a compound represented by formula (1), $R_m-Si-(OR')_n$.

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